

# Initiative to Revise EPA's Pesticide Ecological Assessment Process

U.S. Environmental Protection Agency, Washington, D.C.

## Phase II: Evaluation of ECOFRAM Results and Development of Implementation Options

### Implementation Team

Once ECOFRAM has completed their final reports, EFED will form an Implementation Team. This team will be composed of a cross-section of EFED scientists experienced in the environmental risk assessments of pesticides. Other OPP divisions will also be asked to participate.

They will be responsible for:

- (1) Preparing a technical report summarizing their evaluation and review of the ECOFRAM reports;
- (2) Developing options for implementing probabilistic tools and methods based on their conclusions;
- (3) Identifying and coordinating additional developmental work, research, and validation;
- (4) Organizing peer reviews,
- (5) Training, and
- (6) Continuing outreach activities.

### 1. Technical Report

The Implementation Team will be responsible for OPP's internal technical review of the ECOFRAM reports. This review should include the following:

- Comparison and evaluation of ECOFRAM's proposed aquatic and terrestrial assessment methods;
- Comparison with the current assessment process;
- Summary of proposed changes that can be implemented rapidly, require further development, and are not feasible or appropriate;
- Discussion of additional developmental, research, and validation needs; and
- Discussion of changes and/or additions to guidelines, standard evaluation procedures, and data requirements.

### 2. Implementation Options

Based on the conclusions of their technical review, the Implementation Team will develop implementation options. These will:

- Consider how to integrate probabilistic approaches into OPP's current ecological assessment processes;
- Describe options to phase-in the new processes;
- Discuss mechanisms to encourage additional developmental work, answer research questions, and validate new processes;
- Identify the steps and processes to change data requirements guidelines, etc.;
- Outline proposals for peer review, training, and outreach; and
- Propose a timeline for implementation.

### 3. Developmental Work, Research, and Validation

The Implementation Team will need to discuss and consider the following:

- (1) Additional developmental work, such as further model development and case studies to test concepts and identify strengths and weaknesses of proposed methods and techniques;
- (2) Research needs for evaluating terrestrial risk, such as better defining the distribution of variables, including environmental residues, decline curves, food ingestion rates, and pesticide elimination rates; describing the functional relationship between laboratory and field effects; dose/response reproductive tests; and others;
- (3) Research needs for aquatic risk, such as models of tissue residue concentration and effects, guidelines for laboratory toxicity tests with time-varying exposures, general principles for evaluating time-varying exposure-response, and others; and
- (4) Validation work, such as evaluating the various functions identified in the model to see if they represent actual field responses and if model predictions are in reasonable agreement with observed field effects.

### 4. Peer Review

Potential revisions to the assessment process must receive the appropriate level of critical peer review. The Implementation Team will need to consider at what stage(s) peer review would be appropriate and the best peer review approach. For example, they may consider:

- (1) Letter reviews of the Technical Report and Implementation Plan, possibly before an SAP review;
- (2) SAP meeting, possibly organized as a joint SAP/Scientific Advisory Board meeting, to discuss the Technical Report and Implementation Plan; and/or
- (3) Other options, such as a peer review workshop.

### 5. Training

Various levels of training will need to be developed once decisions have been made regarding changes to the assessment process. The Implementation Team will need to discuss the best approach for training various groups, such as risk assessors, risk managers, and stakeholders.

- Risk assessors will need training on all aspects of the new processes.
- Risk managers will need some technical training, especially on the interpretation of assessment results, assumptions, limitations, and level of certainty. The Implementation Team will need to work closely with risk managers to devise the best training program to suit their needs.
- Stakeholders may also be interested in training, and the Team will need to consider the best approach to use for stakeholders, such as a public workshop, short courses during professional meetings, or other approaches.

### 6. Outreach

To maintain an open and transparent process, EFED plans to keep the public and the scientific community informed on the progress of the Implementation Team. Several options are available to achieve this.

The public --

- Continued updates to the PPDC and SFIREG
- Opportunity for public comment on proposed implementation plan

Scientific community --

- Continued participation in nationally and internationally recognized meetings

All --

- Maintaining the home page
- Holding workshops

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